

# Atchafalaya

## MASTER PLAN

## INTRODUCTION TO THE PLANNING EFFORT

STATE OF THE COAST  
MAY 21, 2025

PAIGE GREEN



# AGENDA

- Welcome
- Background
  - Highlights
  - History
  - Challenges & Considerations
- Atchafalaya Master Plan Development
  - Team Members
  - Plan Development Process
  - Schedule

# ATCHAFALAYA RIVER SYSTEM HIGHLIGHTS

- Home to the nation's largest river swamp
- Contains the largest contiguous bottomland hardwood forest in North America
- Atchafalaya River and Wax Lake deltas have exhibited increases in wetland area since 1974
- Atchafalaya River conveys about 30% of the combined flow of the Mississippi and Red rivers to Atchafalaya Bay
- Home to the largest nesting concentration of bald eagles in the south-central United States
- Estimated average annual commercial harvest of nearly 22 million pounds of crawfish
- A critical navigable waterway for shipping

# HISTORY OF PLANNING

**The Atchafalaya River System is managed by USACE to support flood risk management. In recent decades, state and federal interest has expanded to include restoration and navigation.**

- Atchafalaya Basin Floodway System, Louisiana Feasibility Study (USACE, 1982)
- Atchafalaya Basin Floodway System Louisiana Project State Master Plan (LDNR, 1998)
- Atchafalaya Basin Program Annual Plans (LDNR, 2010-2019; CPRA, 2020-present)
  - In 2018, the Louisiana Legislature (Act 570) transferred the responsibilities of the Atchafalaya Basin Program from LDNR to CPRA.
- Atchafalaya River Basin Restoration and Enhancement (ARBRE) Task Force Findings and Recommendations to the Louisiana Coastal Protection and Restoration Authority Board (GOCA, 2021)

# ARBRE TASK FORCE

- The Atchafalaya River Basin Restoration and Enhancement (ARBRE) Task Force was charged with:
  - Elevating critical issues facing the Atchafalaya Basin
  - Identifying and building support for new and recurring sources of funding
  - Identifying shared goals and values for the restoration and enhancement of the basin
  - Building consensus and advising the Atchafalaya Basin Program on matters relating to implementing the Atchafalaya Basin Floodway System Louisiana Project.
- A key recommendation of the Task Force was to update the *1998 State Master Plan*
- Funding for the Atchafalaya Master Plan was made available via Capital Outlay

# CHALLENGES & CONSIDERATIONS

- Hydrology
- Sedimentation
- Water Quality
- Flood Risk
- Navigation
- Stakeholder Priorities, Interests, and Uses

# ATCHAFALAYA MASTER PLAN DEVELOPMENT

# TEAM MEMBERS



Denise Reed  
LLC

emergent  
method



Jenneke  
Visser





# PLAN DEVELOPMENT PROCESS

**1. Developing Goals  
and Objectives**

**2. Identifying  
Candidate Projects for  
WPU's**

**3. Evaluating Projects**

**4. Prioritizing Projects**

**5. Developing Master  
Plan**

# 1. DEVELOPING GOALS AND OBJECTIVES

## ALIGNED WITH THE COASTAL MASTER PLAN

### GOAL

- Manage the use of Atchafalaya River System sediments and water to maximize ecosystem functions and support continued human uses

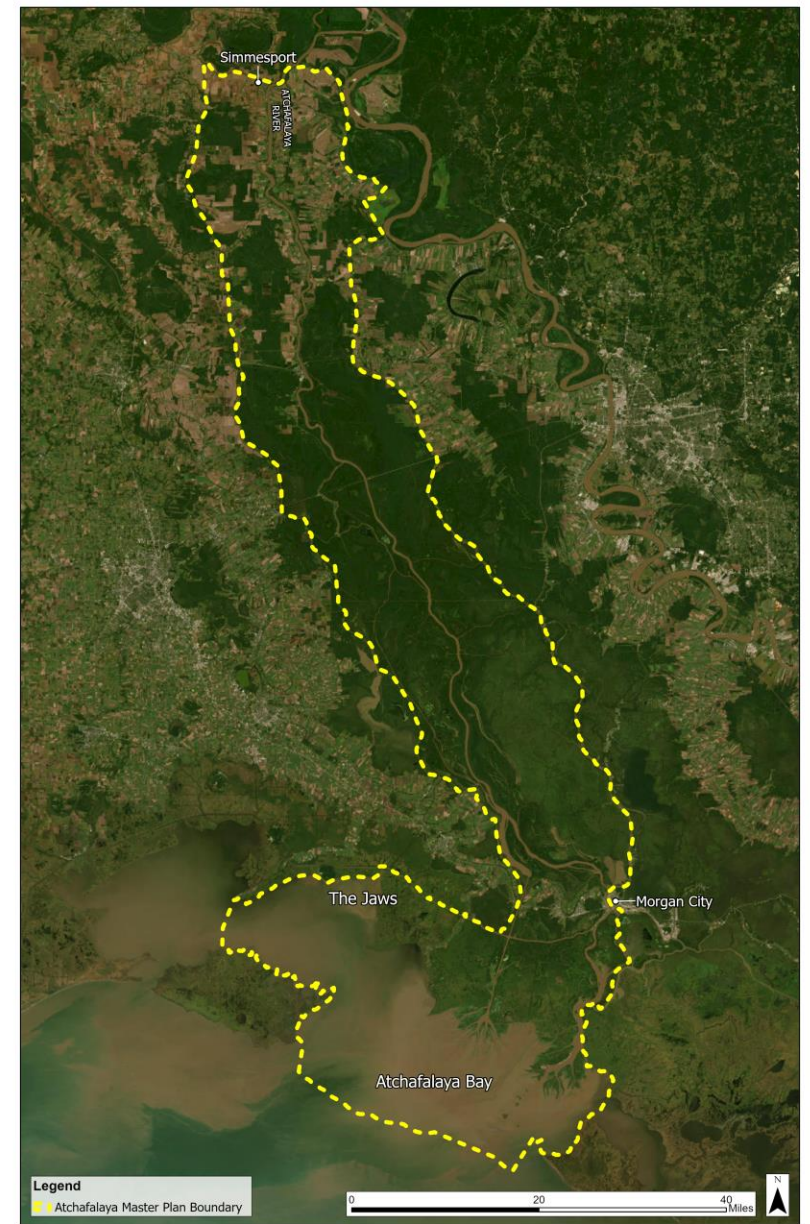
### OBJECTIVES

- **NATURAL PROCESSES:** Promote a sustainable ecosystem by harnessing the natural processes of the Atchafalaya River System.
- **HABITATS:** Provide habitats suitable to support conservation and an array of commercial and recreational activities in the Atchafalaya River System.
- **CULTURAL HERITAGE:** Sustain the unique cultural heritage of the Atchafalaya River System by protecting historic properties and traditional living cultures and their ties and relationships to the natural environment.
- **WORKING RIVER SYSTEM:** Promote a viable working Atchafalaya River System to support regionally and nationally important business and industry.

\*Note that this plan is focused on restoration and conservation actions, not on addressing flood risk.

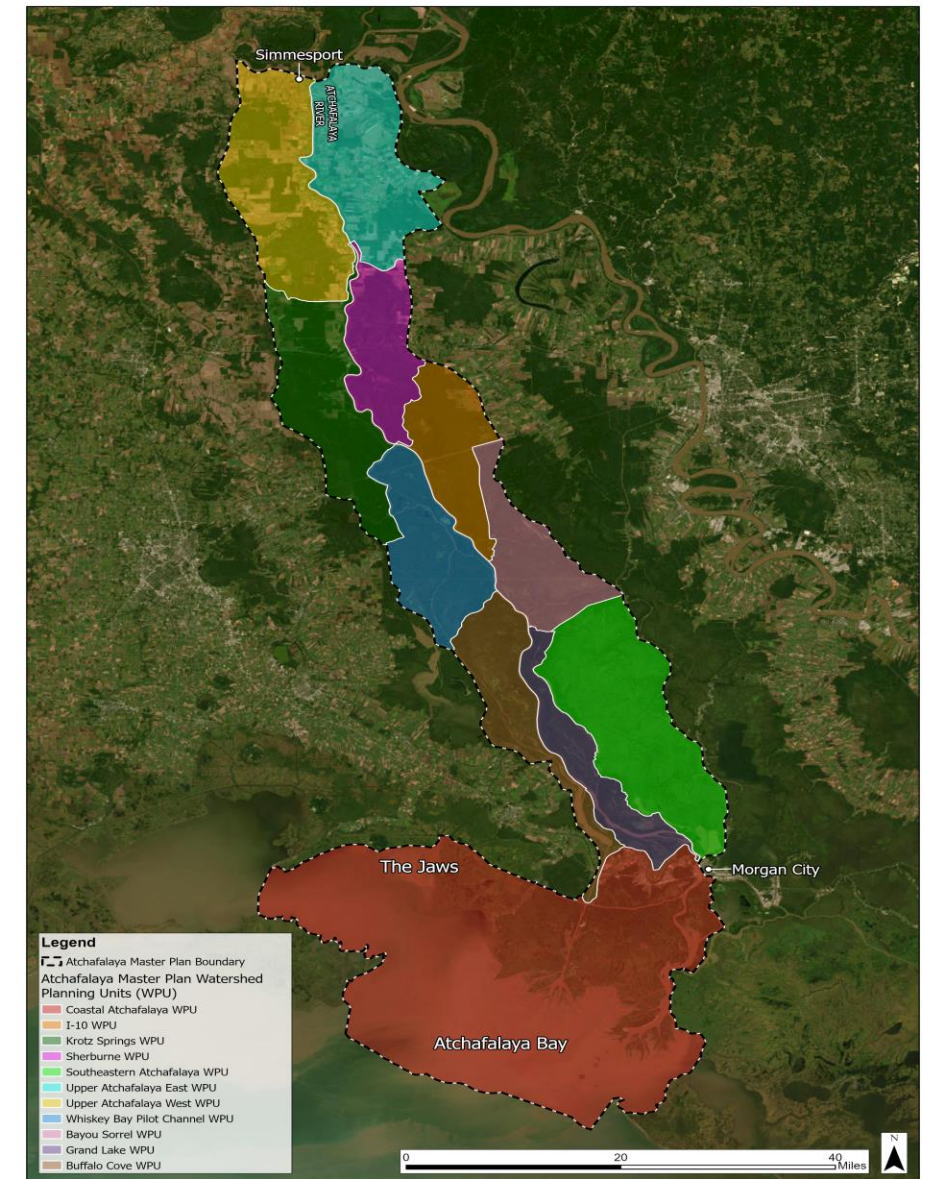
# ATCHAFALAYA MASTER PLAN BOUNDARY

- Total area: ~1.5M acres
- Boundary
  - North: Simmesport
  - South: Gulf of America
  - East and West (above Morgan City): Atchafalaya Basin Protection Levees
  - West (below Morgan City): West Cote Blanche Bay
  - East (below Morgan City): Atchafalaya Bay



# WATERSHED PLANNING UNITS

- Eleven WPUs were developed using HUC10 boundaries modified using intuitive dividers such as levees or rivers
- WPUs range from ~56,000 to ~568,000 acres
- Land cover types include
  - Upland and Cultivated Crops
  - Bottomland Hardwood and Swamp Forest
  - Fresh, Intermediate, Brackish, and Saline Marsh
- Identify objectives and targets for each WPU





## 2. IDENTIFYING CANDIDATE PROJECTS FOR WPU<sub>s</sub>

### CANDIDATE PROJECTS WERE IDENTIFIED FROM A VARIETY OF SOURCES:

- Previous plans
- Public project solicitation process
- Experts with local knowledge
- Plan Development Team based on predicted future conditions
- USACE Lower Mississippi River Comprehensive Study

### ADDITIONAL CANDIDATE PROJECT DEVELOPMENT

- Public project solicitation
- Examination of modeling outputs
- Input from interested parties and experts

# 3. EVALUATING PROJECTS

## CANDIDATE PROJECT EVALUATION

- Model project effects
- Assess project performance
  - How well do projects meet WPU objectives?
- Refine projects as needed
- Identify ineffective projects

# 4. PRIORITIZING PROJECTS

## PROJECT EVALUATION

- Consider project costs and budget constraints
- Score and rank projects
- Use basin-scale modeling to evaluate cumulative effects

# 5. DEVELOPING MASTER PLAN

## DRAFT ATCHAFALAYA MASTER PLAN

- Finalize higher priority projects
- Incorporate programmatic projects



# SCHEDULE



# QUESTIONS

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# CONNECT WITH US

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